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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

"SUBMITTAL OF PRELIMINARY EXAMINATION REPORT"

APPLICANT: Andreas HIRN Docket No. P00,1035
SERIAL NO: 09/555,425 GROUP ART: 2734
DATE FILED: May 30, 2000 EXAMINER:
INVENTION: **"METHOD FOR CONVERTING DIGITAL DATA IN THE
RASTER OF A FIRST RESOLUTION INTO DIGITAL TARGET
DATA HAVING A SECOND RESOLUTION"**

Hon. Assistant Commissioner for Patents
Washington, D.C. 20231

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JUL 09 2001

SIR:

Technology Center 2600

Enclosed is an English translation of the International Preliminary Examination Report for the above-identified application. The Examiner's attention is directed to the reasoned statement in section V. wherein all claims are reported as meeting the three standards of patentability. Favorable consideration of the present application is hereby requested.

Respectfully submitted,

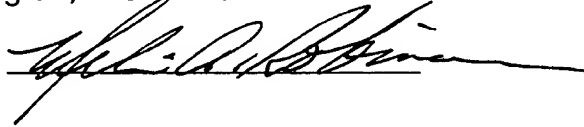
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to:

The Assistant Commissioner for Patents
Washington, D.C. 20231

on June 27, 2001.

A handwritten signature in black ink, appearing to read "William A. Robinson", written over a horizontal line.

PATENT COOPERATION TREATY



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NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

SCHAUMBURG, Karl Heinz
 Postfach 86 07 48
 D-81634 München
 ALLEMAGNE

EINGEGANGEN

23. Juni 2000

Erled.

Date of mailing (day/month/year) 26 May 2000 (26.05.00)		RECEIVED JUN 09 2001 Technology Center 2600	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 97 1001 P			
International application No. PCT/EP98/07689	International filing date (day/month/year) 27 November 1998 (27.11.98)		
Applicant OCE PRINTING SYSTEMS GMBH et al			

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

CA,JP,US

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

EP,DE

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
 34, chemin des Colombettes
 1211 Geneva 20, Switzerland

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Authorized officer

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Translation

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's file reference 97 1001 P	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP98/07689	International filing date (day/month/year) 27 November 1998 (27.11.98)	Priority date (day/month/year) 28 November 1997 (28.11.97)
International Patent Classification (IPC) or national classification and IPC G06T 3/40		RECEIVED JUL 09 2001 Technology Center 2000
Applicant OCE PRINTING SYSTEMS GMBH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 8 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 28 June 1999 (28.06.99)	Date of completion of this report 25 February 2000 (25.02.2000)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP98/07689

I. Basis of the report

1. This report has been drawn on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

- ☐ the international application as originally filed.
- ☒ the description, pages 1-4, 6-44, as originally filed,
pages _____, filed with the demand,
pages 5, 5a, filed with the letter of 02 December 1999 (02.12.1999),
pages _____, filed with the letter of _____.
- ☒ the claims, Nos. _____, as originally filed,
Nos. _____, as amended under Article 19,
Nos. _____, filed with the demand,
Nos. 8-22, filed with the letter of 02 December 1999 (02.12.1999),
Nos. 1-7, filed with the letter of 22 February 2000 (22.02.2000).
- ☒ the drawings, sheets/fig 1-10, as originally filed,
sheets/fig _____, filed with the demand,
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-22	YES
	Claims		NO
Inventive step (IS)	Claims	1-22	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-22	YES
	Claims		NO

2. Citations and explanations

1. Field: The application concerns a method for converting an image from a source raster into a target raster. This corresponds to a change in image resolution.
2. Problem: Calculation of the target data from the source data, without intermediate steps.
3. Closest prior art: WO-A-96/16380 (D2) calculates target image lines directly from source image lines using interpolation kernels stored in look-up tables, starting from a predetermined scaling factor and interpolation instruction; the missing target image lines (when the image is enlarged) are interpolated from those target image lines during a second step (see pages 6, 7 and 13, and Figure 2).
4. Solution: An algorithm is used that allows each target pixel to be directly calculated from a source pixel and its neighbouring pixel (Claim 1); for this purpose, the scaling and smoothing rules selected in each case are combined into a single rule (Claim 3).
5. Inventive step: Although D2 also uses only one

"rule" (selected interpolation kernel), it needs two steps to arrive at the target image.

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. The independent claims do not define a method in the sense of consecutive steps, but rather only a number of juxtaposed features that define a result to be achieved. The individual features (b), (c) and (d) are partly redundant, leading to a lack of clarity concerning the essential features and their interaction.
 - 1.1 For example, feature (d1) of Claim 1 appears to define the same subject as feature (c): target data are directly determined from source data; this is in turn contained in the last part of feature (b); the only additional feature defined in (d1) is smoothing, which in turn appears in feature (c). Likewise, the "identity" of scaling and smoothing (feature (d)) is implicitly contained in the definition of the "direct determination" of the target pixels from the source pixels at the end of feature (b).
 - 1.2 The wording of the claim should be tighter (for example, in the form "method for converting... by scaling and smoothing in one step, in which [feature (b)], so that the target data in the source data raster are smoothed").
 - 1.3 The same applies to Claim 3, which substantially adds to Claim 1 only the selection of scaling and smoothing "rules" and their combination (at the same time, it is not clear what the word "rule" is supposed to mean in relation to scaling, which is

VIII. Certain observations on the international application

usually defined only by a scaling factor.

2. Claim 22 should apparently be dependent on Claim 21.